Conservation Records

Cropland Inventory

(includes hay land, orchards, vineyards, Christmas trees, and berries)

Name: _____

Farm/Ranch: _____

Crop Rotation and Management

NRCS Natural Resources Conservation Service

The ***Crop Rotation and Management*** worksheet captures information regarding crops you grow and the rotation they are part of. Please fill out this form if you have cropland or hay land that has a rotational sequence. Follow the example below when entering your information on the following page.

EXAMPLE

Worksheet C1: **Crop Rotation and Management**

Field Number or Name	***Typical Rotation Sequence***									
	Yr 1	***Yr 2***	***Yr 3***	***Yr 4***	***Yr 5***	***Yr 6***	***Yr 7***	***Yr 8***	***Yr 9***	***Yr 10***
3 & 4	*Perennial/Rye Grass Seed*				*Crimson Clover*	*Winter Wheat*				
5, 6, & 7	*Alfalfa*			*Potatoes*	*Winter Wheat*	*Potatoes*	*Corn*			
1, 2, & 8	*Winter Wheat*	*Spring Barley*	*Summer Fallow*							
all	*Winter Wheat*	*Winter Wheat*	*Carrots, Seed*	*Winter Wheat*	*Orchard Grass*	*Winter Wheat*	*Winter Wheat*			

Additional Comments or Observations:

Worksheet C1: **Crop Rotation and Management**

Field Number or Name	*Typical Rotation Sequence*									
	Yr 1	*Yr 2*	*Yr 3*	*Yr 4*	*Yr 5*	*Yr 6*	*Yr 7*	*Yr 8*	*Yr 9*	*Yr 10*

Additional Comments or Observations:

Crop Residue Management

NRCS Natural Resources Conservation Service

The ***Crop Residue Management*** worksheet captures information regarding the crop residues on your fields. Complete this form only if you have cropland. This worksheet does not apply to alfalfa, hay, or other forage crops. You do not need to complete this worksheet if you have forage crops. If you have orchards, vineyards, christmas trees or berries please skip the following questions and move to the ***Residue Management: Orchards, Vineyards, Christmas Trees and Berries*** worksheet on page C6.

Please follow the example below when entering your information on the following page. Use the ***Residue Estimates*** table below when completing the ***Estimated Amount of Residue*** column.

Table C1: **Residue Estimates**

Crop	*Estimated pounds of residue per unit of yield*
Winter Wheat	**80-110 pounds/bushel**
Winter Barley	**1.0-1.7 pounds/pound**
Spring Wheat	**70-100 pounds/bushel**
Spring Barley	**.85-1.5 pounds/pound**
Spring Peas	**.85-1.4 pounds/pound**
Lentils	**.85-1.4 pounds/pound**
Oats	**40-60 pounds/bushel**
Corn / Grain	**50-60 pounds/bushel**
Grass / Seed	**4.0-4.75 pounds/pound**
Sugarbeets	**140 pounds/ton**
Potatoes	**125 pounds/ton**
Canola	**2.5-2.75 pounds/pound**
Clover Seed	**.75-1.5 pounds/pound**

Example: For column 6 of the worksheet below, you will enter a value within the acceptable range, as shown in ***Table C1,*** that best describes the residue on your land. To calculate the ***Estimated Residue*** for column 7, multiply column 5 by column 6. For instance, A 60-bushel per acre crop of winter wheat produces 4,800-6,600 pounds of residue per acre:

60 bu/ac X 80 lbs/bu = 4,800 lbs/ac

60 bu/ac X 110 lbs/bu = 6,600 lbs/ac

Note: The specific amount of residue produced by a crop depends on several factors. These include timing and amount of precipitation, temperatures, stored soil water, soil depth, crop variety and pests.

EXAMPLE

Worksheet C2: **Crop and Residue Management**

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Crop	***Field/ Unit***	***Planting Date***	***Harvest Date***	***Average Yield per Acre***	***Est. Residue per Unit of Yield***	***Estimated Residue***	***Is Residue Removed?***	***Removal Method***
Winter Wheat	*103, Lower*	*10/1 to 10/5*	*8/1 to 8/10*	*100 bu (irr) 60 bu (Nlrr)*	*100 91.66*	*10,000 lbs 5,500 lbs*	*N*	*-----*
Perennial Rye Grass for seed	*216*	*8/20*	*7/5 to 7/15*	*1500 lbs/ acre*	*91.6*	*7,000 lbs/acre*	*Y*	*Swath, Bale & Burn*
Crimson Clover	*316, 26*	*8/15*	*6/25*	*800 lbs/acre*	*1.25*	*1,000 lbs/acre*	*N*	*----*
Spring Barley	*16, 18, 12*	*4/1*	*7/20*	*3,000 lbs/acre*	*1.233*	*3,700 lbs/acre*	*N*	*----*
Corn, Field	*3,6,25*	*5/10*	*10/15 to 10/20*	*130 bu*	*60*	*7,800 lbs/acre*	*Y*	*Tillage*

Worksheet C2: **Crop and Residue Management**

1	2	3	4	5	6	7	8	9
Crop	*Field/ Unit*	*Planting Date*	*Harvest Date*	*Average Yield per Acre*	*Est. Residue per Unit of Yield*	*Estimated Residue*	*Is Residue Removed?*	*Removal Method*

Additional Comments or Observations:

Orchards, Vineyards, Christmas Trees and Berries

NRCS Natural Resources Conservation Service

The ***Crop Residue Management - Orchards, Vineyards and Christmas Trees*** worksheet captures information regarding crop residues on your fields. Please complete this worksheet only if you have orchards (i.e., cherry, pear, apple and hazelnut), vineyards, Christmas trees, or berry crops (i.e., blueberries, cranberries, blackberries, raspberries, strawberries, and boysenberries).

Under the ***Crop*** column, please include the variety of the tree , grape or berry grown. Fields with the same characteristics may be listed on one line.

Follow the example below when entering your information on the following page.

EXAMPLE

Worksheet C3: **Residue Management:** Orchards, Vineyards Christmas Trees, Berries

Crop	*Field/Unit*	*Average Harvest Yield*	*Distance Between Rows*	*Spacing within Row*
Pinot Noir Grapes	*1*	*5 T*	*8 ft*	*N/A*
Noble Fir Christmas Trees	*3*	*1,400 Trees*	*5'*	*5'*
Comice Pears	*4*	*700 bu*	*8'*	*20ft*
Thornless Evergreen Blackberries	*7*	*4 T*	*10 ft*	*N/A*

Do you maintain cover between the rows? If so, what type?
Yes, mixed grasses are used as a cover crop between the rows.

Worksheet C3: **Residue Management:** Orchards, Vineyards Christmas Trees, Berries

Crop	*Field/Unit*	*Average Harvest Yield*	*Distance Between Rows*	*Spacing within Row*

Do you maintain cover between the rows? If so, what type?

Field Operations

NRCS Natural Resources Conservation Service

The ***Field Operations*** worksheet captures information on your typical tillage operations, pest control strategies, residue management, harvest, and irrigation water application. Complete a worksheet for each crop in your rotation. ***Table C2: Typical Field Operations*** on pages C-10 and 11, lists the typical tillage operations to complete the ***Typical Operation for Crop*** column. Use the tillage operation number from the ***Table C2*** to complete the column .

For orchards, vineyards and other similar crops please include row operations as well as other field operations (mowing, mulching, etc.).

Follow the example below when entering your information on the following page.

EXAMPLE

Worksheet C4: **Field Operations**

Fields(s):	*1, 2, 3, 16, 20*			
Crop Planted and Yield:	*Potato 530 cwt., Winter Wheat 130 bu/acre*	***Previous Crop and Yield:***	*Alfalfa Hay 7 tons/acre*	
Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control etc.				
Date of Operation	***Typical Operation for Crop***	***Comments on Operation***	***Monthly Irrigation Dates***	***Irrigation Application***
10/16/00	*27 (Heavy Offset Disk)*	*12 inches deep*		
10/20/00	*121 (Sub Soiler)*	*30 inch spacing, 24 inch depth*		
2/15/01	*29 (Tandem Disk)*		*2/15-3/15*	*2 inches*
3/15/01	*6 (Bedder, Disk Hiller)*			
4/1/01	*Planter 30 inch Rows*		*4/1-5/1*	*3 inches*
5/1/01	*19 (Cultivator, Disk Hiller on Beds)*		*5/1-6/1*	*4 inches*
5/10/01	*49 (Dammer Diker)*			
5/15/01	*Insecticide Spray - Aerial*			
6/1/01	*119 (Herbicide Spray - Aerial)*		*6/1-7/1*	*6 inches*
6/15/01	*Insecticide Spray - Aerial*			
7/1/01	*119 (Herbicide Spray - Aerial)*		*7/1-8/1*	*8 inches*
			8/1-9/15	*6 inches*
10/15/01	*68 (Harvest, Dig Potatoes)*		*10/15-11/1*	*2 inches*
10/20/01	*Surface Broadcast Fertilizer + harrow + cultipacker*			
10/25/01	*35 (Drill Seeder, Double Disk)*			
8/1/02	*Harvest Wheat*		*3/1-5/1*	*12 inches*

Worksheet C4: **Field Operations**

Field(s):				
Crop Planted and Yield:		***Previous Crop and Yield:***		
Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control etc.				
Date of Operation	***Typical Operation for Crop***	***Comments on Operation***	***Monthly Irrigation Dates***	***Irrigation Application***

Table C2: **Typical Field Operations**

Alphabetical List of Field Operations *Use corresponding number on Worksheet C3.*
1. Aerator, field surface, ground driven
2. Aerial seeding
3. Bale straw or residue
4. Bed shaper
5. Bed shaper, 12 in
6. Bedder, hipper, disk hiller
7. Bedder, hipper, hiller 12 in high
8. Bedder, hipper, hiller 15 in high
9. Bedder, hipper, hiller 18 in high
10. Burn residue
11. Chisel, st. pt.
12. Chisel, st. pt. 12 in deep
13. Chisel, st. pt. 15 in deep
14. Chisel, sweep shovel
15. Chisel, twisted shovel
16. Cultipacker, roller
17. Cultivator, field 6-12 in sweeps
18. Cultivator, field w/ spike points
19. Cultivator, hipper, disk hiller on beds
20. Cultivator, off bar w/disk hillers on beds
21. Cultivator, row - 1st pass ridge till
22. Cultivator, row - 2nd pass ridge till
23. Cultivator, row 1 in ridge
24. Cultivator, row 3 in ridge
25. Cultivator, row, high residue
26. Disk, offset, heavy
27.Disk, offset, heavy 12 in depth
28. Disk, offset, heavy 15 in depth
29. Disk, tandem heavy primary op.
30. Disk, tandem light finishing
31. Disk, tandem secondary op.
32. Drill or air seeder single disk openers 7-10 in space.
33. Drill or air seeder, hoe opener in hvy residue
34. Drill or air seeder, hoe/chisel openers 6-12 in space.
35. Drill or air seeder, double disk
36. Drill or air seeder, double disk opener, w/ fertilizer openers
37. Drill or air seeder, double disk, w/ fluted coulters
38. Drill or air seeder, offset double disk openers

Alphabetical List of Field Operations *Use corresponding number on Worksheet C3.*
39. Drill, air seeder, sweep or band opener
40. Drill, deep furrow 12 to 18 in spacing
41. Drill, heavy, direct seed, double disk opener
42. Drill, heavy, direct seed, double disk opener w/row cleaners
43. Drill, semi-deep furrow 12 to 18 in spacing
44. Fertilizer application. anhyd knife 12 in
45. Fertilizer application. deep plcmt hvy shank
46. Fertilizer application. surface broadcast
47. Fertilizer application, anhyd knife 30 in
48. Fertilizer application, strip-till 30 in
49. Furrow diker
50. Furrow shaper, torpedo
51. Graze, continuous
52. Graze, intensive rotational
53. Graze, rotational
54. Graze, stubble or residue
55. Hand Planting
56. Harrow, coiled tine
57. Harrow, heavy
58. Harrow, rotary
59. Harrow, spike tooth
60. Harrow, tine, on beds
61. Harvest, grass or legume seed, leave forage
62. Harvest, grass seed, remove forage
63. Harvest, hay, grass
64. Harvest, hay, legume
65. Harvest, hay, no regrowth
66. Harvest, small grains, corn, peas, canola, mustard
67. Harvest, legume seed, remove forage
68. Harvest, root crops, digger
69. Harvest, silage
70. Harvest, snapper header
71. Harvest, stripper header
72. Knife, windrow dry beans
73. Land plane
74. Lister, 40 in
75. Manure injector
76. Manure spreader
77. Mower, swather, windrower
78. Mulch treader

Table C2: **Typical Field Operations**

Continued from previous page

Alphabetical List of Field Operations *Use corresponding number on Worksheet C3.*
79. Para-plow or para-till
80. Permeable weed barrier applicator
81. Planter, double disk opener
82. Planter, double disk opener w/fluted coulter
83. Planter, double disk opener, 18 in rows
84. Planter, in-row subsoiler
85. Planter, small veg seed
86. Planter, strip till
87. Planter, transplanter, vegetable
88. Planter, transplanter, vegetable, no-till
89. Planting, broadcast seeder
90. Plastic mulch applicator 100 percent cover
91. Plastic mulch applicator 40 percent cover
92. Plastic mulch applicator 75 percent cover
93. Plastic mulch, 05 percent removal
94. Plastic mulch, 10 percent removal
95. Plastic mulch, 25 percent removal
96. Plastic mulch, 50 percent removal
97. Plastic mulch, remove
98. Plow, disk
99. Plow, moldboard
100. Plow, moldboard, conservation
101. Plow, moldboard, up hill
102. Plow, reversible
103. Pruning
104. Rodweeder

Alphabetical List of Field Operations *Use corresponding number on Worksheet C3.*
105. Roller, corrugated packer
106. Roller, on beds
107. Roller, residue
108. Roller, smooth
109. Rotary hoe
110. Rototiller, field
111. Rototiller, field, add residue
112. Rototiller, row cult add residue
113. Rototiller, row cultivator
114. Seedbed finisher
115. Shredder, flail or rotary
116. Shredder, rotary, regrow veg
117. Shredder, rotary, remove residue
118. Sprayer, kill weeds, volunteer for reduced/ no till
119. Sprayer, post emergence
120. Striptiller w/middlebuster on beds
121. Subsoiler
122. Subsoiler bedder (ripper/hipper)
123. Subsoiler ripper, 24 to 40 in. deep
124. Sweep plow 20-40 in wide
125. Sweep plow wider than 40 in w/mulch treader
126. Sweep plow, wider than 40 in

Crop Fertilizer

NRCS Natural Resources Conservation Service

The ***Crop Fertilizer Worksheet*** captures information on the nutrient applications on your operation. In the ***Soil Test*** column, please write "YES" or "NO" to indicate whether your fertilizer application rate is based on soil test results. Also indicate how often soil testing is completed. Please attach a copy of the latest soil test for each field. Follow the example below when entering your information on the next page.

EXAMPLE

Worksheet C4: **Crop Fertilizer**

Crop Grown	Field/ Unit	Fertilizer Formula-tion	Application Rate lbs/ac	Application Method and Date	Application Depth	Soil Test
Perennial Rye Grass Seed	*3 & 4*	*16-20-0*	*100 lbs/acre*	*Banded at fall planting*	*2 inches*	*Yes, every year*
Perennial Rye Grass	*3 & 4*	*45-0-0*	*300 lbs/ acre*	*Broadcast in Feb. & application in April*	*Surface*	*No*
Crimson Clover	*3 & 4*	*None*	*----*	*----*	*----*	*----*
Winter Wheat	*3 & 4*	*16-16-16*	*100 lbs/acre*	*Banded at seeding in fall*	*2 inches*	*No*
Corn	*5, 6, & 7*	*Feedlot Manure*	*10 tons/acre*	*Broadcast April*	*Disk to 4 inch depth*	*No*
Alfalfa	*5, 6, & 7*	*0-0-50-18*	*200 lbs/acre*	*Broadcast at seeding*	*Disk in*	*No*
Potato	*5, 6, & 7*	*20-10-10*	*500 lbs/acre*	*Banded at Planting*	*4 inches*	*Yes, every 2 years*
Potato	*5, 6, & 7*	*46-0-0*	*200 lbs/acre*	*Broadcast*	*Irrigated in*	*No*

1. If irrigated, has water been tested for nitrates? ***Attach any available nitrate tests to this page.***	**Yes**	✓	**No**	
2. Do you apply nutrients according to NRCS, Extension, or accredited industry recommendations or realistic yield goals?	**Yes**	✓	**No**	
3. Do you properly dispose of rinse water after cleansing fertilizer application equipment?	**Yes**	✓	**No**	

4. Do you calibrate your equipment? If yes, how often?

Yes, once prior to application season.

5. If fields are located near a surface water source, do you have designated set-back areas (buffers, vegetation)? If so, what is the approximate width of the area?

Average width is two times active channel width — mixture of herbaceous vegetation and grasses with equal amount of native trees and shrubs.

Worksheet C4: **Crop Fertilizer**

Crop Grown	*Field/ Unit*	*Fertilizer Formula-tion*	*Application Rate lbs/ac*	*Application Method and Date*	*Application Depth*	*Soil Test*

1. If irrigated, has water been tested for nitrates? ***Attach any available nitrate tests to this page.***	**Yes**		**No**	
2. Do you apply nutrients according to NRCS, Extension, or accredited industry recommendations or realistic yield goals?	**Yes**		**No**	
3. Do you properly dispose of rinse water after cleansing fertilizer application equipment?	**Yes**		**No**	
4. Do you calibrate your equipment? If yes, how often?				

5. If fields are located near a surface water source, do you have designated set-back areas (buffers, vegetation)? If so, what is the approximate width of the area?

Pest Management

NRCS Natural Resources Conservation Service

The ***Pest Management Worksheet*** captures information on the methods used to control plant pests, weeds, and diseases. The following bullets include additional information to assist in completing this worksheet.

- In the ***Suppression Method*** column, please include the product name or the active ingredient of the chemical used to manage the target pest listed. If you know the EPA Registration Number, list that as well.
- In the ***Pesticide Application Rate*** column, include the rate of application of the active ingredient (ai).
- In the ***Broadcast or Banded*** column, indicate whether the pesticide was broadcast (more than 50% of field) or banded (less than 50% of field). If these options do not apply, simply indicate that they are not applicable.
- In the ***Surface, Soil Incorporated or Foliar Applied*** column, indicate whether the pesticide was surface-applied (applied to soil surface), soil-incorporated (mixed into the soil with light tillage or irrigation), or a foliar application (sprayed on a nearly full crop/weed canopy and/or on a more than 50 percent residue cover). If none of these practices apply, simply indicate that they are not applicable.
- Under the ***Application Method*** column, indicate whether fertilizer was ground- or aerial-applied.

Please refer to the example below when entering your information on the following page.

EXAMPLE

Worksheet C5: **Pest Management**

Crop Grown	Field Number	Target Pest	Suppression Method (EPA Reg. #)	Pesticide Application Rate	Date Applied	Broadcast or Banded	Surface, Soil-Incorp., or Foliar Application
Winter Wheat	*6*	*Downy Brome*	*Metribuzin 101101*	*.3 lbs of ai/ac*	*10/1*	*Broadcast*	*Surface*
Spring Barley	*3*	*Broadleaf Weeds*	*2, 4-D 030001*	*.75 lbs of ai/ac*	*Late May*	*Broadcast*	*Foliar*
Corn	*1*	*Weeds*	*Row cultivation 2x*	*----*	*5/1 to 5/20*	*----*	*----*
Alfalfa	*5*	*Clover Leaf Weevil*	*Malathion 057701*	*1.0 lbs of ai/ac*	*When needed*	*Broadcast*	*Foliar*
Potatoes	*4*	*Wireworm*	*Phorate 057201*	*3.02 lbs ai per 1,000 feet if row*	*At planting*	*Banded*	*Soil-Incorporated*

1. Do you apply pesticides based on field scouting, treatment thresholds and follow-up evaluations?	**Yes** ✓	**No**
2. Do you replace worn nozzle tips, cracked hoses and faulty gauges?	**Yes** ✓	**No**
3. Do you properly dispose of rinse water after cleansing pesticide application equipment?	**Yes** ✓	**No**

4. If fields are located near a surface water source, do you have designated set-back areas (buffers, vegetation)? If so, what is the approximate width of the area?
Average width is two times active channel width — mixture of herbaceous vegetation
and grasses with equal amount of native trees and shrubs.

Worksheet C5: **Pest Management**

Crop Grown	*Field Number*	*Target Pest*	*Suppression Method (EPA Reg. #)*	*Pesticide Application Rate*	*Date Applied*	*Broad-cast or Banded*	*Surface, Soil-Incorp., or Foliar Application*

1. Do you apply pesticides based on field scouting, treatment thresholds and follow-up evaluations?	**Yes**	**No**
2. Do you replace worn nozzle tips, cracked hoses and faulty gauges?	**Yes**	**No**
3. Do you properly dispose of rinse water after cleansing pesticide application equipment?	**Yes**	**No**

4. If fields are located near a surface water source, do you have designated set-back areas (buffers, vegetation)? If so, what is the approximate width of the area?

Notes

Notes

Notes